

Name: _____

Date: _____ HR: _____

Topic 2.1 Measuring Forces

1. Force is defined as _____.
2. The actual effect of a force on a structure depends on what three things?
 - a.
 - b.
 - c.
3. How are forces measured?
4. What role do mass and distance play in the Law of Gravitation –developed by Sir Isaac Newton?

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Activity: Investigating the Strength of Forces

Problem: What strength of force is needed to move some common objects?

Procedure

1. Look at the actions in table 1. Make an estimate of the strength of the force needed for the first action. (Make sure you estimate in the same units your force meter uses.)
2. Measure the strength of the force and record your result. Was your estimate close?
3. Select a word that you think best describes the direction of the force you measured. Record this direction on your table. Some examples of words you might want to use here are "a pull out," "a push downwards," "a twist to the left."
4. Repeat steps 1 to 3 for each of the other actions. Your estimates will probably get more accurate as you go along.

Table 1

Action	Number of Units of Force		Direction of Force
	Estimated	Measured	
1. Opening you locker			
2. Turning on a light switch			
3. Opening a drawer of a filing cabinet			
4. Turning a doorknob			
5. Opening a refrigerator door			
6. Closing the classroom door			